

# SEMICONDUCTOR COMPONENT AND METHOD OF MANUFACTURING

### Abstract of the Disclosure

5 A semiconductor component includes a semiconductor  
layer (110) having a trench (326). The trench has first and  
second sides. A portion (713) of the semiconductor layer  
has a conductivity type and a charge density. The  
semiconductor component also includes a control electrode  
10 (540, 1240) in the trench. The semiconductor component  
further includes a channel region (120) in the semiconductor  
layer and adjacent to the trench. The semiconductor  
component still further includes a region (755) in the  
semiconductor layer. The region has a conductivity type  
15 different from that of the portion of the semiconductor  
layer. The region also has a charge density balancing the  
charge density of the portion of the semiconductor layer.